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Application of Traditional Chinese Medicine Combined with TACE in Patients with Primary Hepatocellular Carcinoma and Its Effect on Liver Function

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ABSTRACT

Objective: To analyze the effects of Chinese herbal medicine combined with transcatheter arterial chemoembolization (TACE) on liver function in patients with primary hepatocellular carcinoma (HCC). **Methods:** 122 patients with primary hepatocellular carcinoma admitted in our hospital from March 2014 to October 2016 were divided into experimental group and control group according to the digital table. The number of each group was the same. The patients in the control group were treated by transcatheter arterial chemoembolization. The experimental group was treated with traditional Chinese medicine on the basis of the control group. SPSS20.0 statistical software for statistical analysis of two groups of patients with short-term effect, follow-up of one year primary liver cancer recurrence rate, before and after treatment WBC count, liver function (alanine aminotransferase), alpha-fetoprotein and Karnofsky index parameters. **Results:**①The total effective rate of the experimental group was significantly higher than that of the control group (P <0.05); ②The relapse rate of the experimental group was significantly lower than that of the control group (P <0.05); ③ Before the treatment, the patients in the two groups had significantly higher recurrence rate than those in the control group (P <0.05). After treatment, the white blood cell count, liver function and alpha-fetoprotein levels in the experimental group were significantly better than those in the

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control group (P <0.05), but no significant difference was found between the two groups (P <0.05). ④ The Karnofsky score of the experimental group was significantly higher than that of the control group (P <0.05). **Conclusion:** Chinese medicine combined with transcatheter arterial chemoembolization in patients with primary liver cancer in the application value is relatively high.

0 Introduction

Hepatocellular carcinoma, the most common in primary liver cancer, is more malignant and ranks the second in the mortality of malignant tumor [1-2]. Treatment of patients with primary liver cancer is mainly surgical resection, but because of its inapparent early clinical symptoms, once the diagnosis has reached the middle and late stage, many patients may lose the chance of surgery [3-4]. With the extensive application of transcatheter arterial chemoembolization (TACE), transcatheter arterial chemoembolization has become the first choice for non-surgical treatment of primary hepatocellular carcinoma (HCC). However, only non-operation of transcatheter arterial chemoembolization can cause adverse reactions such as acute hepatic failure and liver damage and jaundice, even reduce the quality of life of patients with primary liver cancer [5-6]. According to the relevant work experience, the author will analyze the application of Chinese medicine combined with transcatheter arterial chemoembolization in patients with primary liver cancer and its effect on liver function. Details are reported below.

1 Materials and methods

1.1 Clinical Material

All the patients in the group participated in the experimental study and signed the relevant consent, and all the patients in the group should be in accordance with the *Diagnosis and Treatment Standard of Primary Liver Cancer* issued by the Ministry of Health of China, excluding people with congenital malformation, serious renal insufficiency and coagulation dysfunction. In the experimental group, there were 40 cases of male patients, 21 cases of female patients; the average age was (57.02 ± 11.54), the average weight was (25±12) kg, type of disease: 50 cases were single, 11 cases were multiple; Tumor location: 29 cases left, 32 cases right lobe.The control group had 41 cases of male patients, 20 cases of female patients; the average age was (57.03 ± 10.95), the average weight was (02±12. one) kg, type of disease: 51 cases were single, 10 cases were multiple; Tumor location: 30 cases left, 31 cases right lobe. There was no statistically significant difference in the general data between the two groups, so they are comparable.

1.2 Methods

1.2.1 Control group

The experimental group was treated with traditional Chinese medicine combined with transcatheter arterial chemoembolization. use Seldinger technology and percutaneous femoral artery puncture to implement DSA angiography; according to blood supply situation, conduct the embolization treatment (760g~1000mg fluorouracil +40mg~80mg cisplatin +20mg mitomycin +5ml~15ml lipiodol ultrafluide). Chinese medicine: compound Yew capsules (Chongqing Sainuo Bio-pharmaceutical Co., Ltd., Medicine Z20026350), 2 capsules a time, 3 times a day, 3 weeks of continuous treatment.

1.2.2 Observation group

The patients in the control group were treated by transcatheter arterial chemoembolization : use Seldinger technology and percutaneous femoral artery puncture to implement DSA angiography; according to blood supply situation, conduct the embolization treatment (760g~1000mg fluorouracil+40mg~80mg cisplatin+20mg mitomycin+5ml~15ml lipiodol ultrafluide)

1.3 Observation indicators

Analyze the short-term effect, follow-up of one-year primary liver cancer recurrence rate, before and after treatment WBC count, liver function (alanine aminotransferase), alpha-fetoprotein and Karnofsky index parameters and other indicators of patients in two groups.

1.4 Assess indicators of short-term effect

Complete remission [7]: After treatment, the lesions in patients with primary liver cancer were completely absorbed; partial remission: After treatment, the multiplication of the maximum diameter of the tumor and the vertical diameter is reduced by more than 50% compared to the number before treatment; Stable: After receiving treatment, the lesion of primary liver cancer patients decreased, and the increase of size is less than 25%; progress: After treatment, the tumor lesions in patients with primary hepatocellular carcinoma were enlarged by 30% compared to the situation before treatment.

Karnofsky index parameters (total 100): patients get 80 to 100 points can act normally, with mild clinical symptoms; patients get 60 to 79 points can take care of themselves and need help sometimes; patients get 10 to 59 points cannot take care of themselves and need hospitalization.

1.5 Statistical method

The data obtained from this subject are SPSS12.0 statistical software. ($\bar{x}$ ±s) is used to express measurement data. T-Test is used to compare the difference between and within groups. χ^2 is used to test the difference. When P< 0.05, the difference is considered statistically significant.

2 Results

2.1 Comparison of operation situations between the two groups

The overall response rate in experimental group is 81.97% (50/61，45 complete remission cases, 5 partial remission cases, 7 stable cases, 4 progress cases)，and the overall response rate in observation group is 52.46% (32/61，22 complete remission cases, 10 partial remission cases, 18 stable cases, 11 progress cases), and the clinical effect of experimental group is better than observation group (P＜0.05＝，see table 1.

Table 1 Comparison of treatment effect in two groups（n / %）

Groups	complete remission	partial remission	stable	progress	overall response rate
experimental group（n=61）	45（73.77）	5 （8.20）	7（11.48）	4（6.56）	50（81.97）
observation group（n=61）	22（36.07）	10（16.39）	18（29.51）	11（18.03）	32（52.46）
t	2.5651	5.4878	7.1441	9.3222	3.2332
P	＜0.05	＜0.05	＜0.05	＜0.05	＜0.05

2.2 Comparison of recurrence rate after one-year follow-up in two groups of patients

The follow-up of one year primary liver cancer recurrence rate in the experimental group is 19.67%

（12/61），and the observation group 54.10%（33/61）. The relapse rate of the experimental group was significantly lower than that of the control group，and there's statistic significance in data of two groups（P＜0.05＝.

2.3 Comparison of before and after treatment white blood cell count, liver function and alpha-fetoprotein levels in two groups of patients

Before the treatment, there's no statistic significance white blood cell count, alanine aminotransferase and alpha-fetoprotein levels in two groups of patients (P>0.05). After treatment, each indicator in the experimental group was significantly better than those in the control group (P ＜ 0.05 ＝ .) See table 2 for specific data.

Table 2 Comparison of before and after treatment white blood cell count, alanine aminotransferase and alpha-fetoprotein levels in two groups of patients

Groups	white blood cell count		alanine aminotransferase		alpha-fetoprotein（ng/ml）	
	Before treatment	After treatment	Before treatment	After treatment	Before treatment	After treatment
control group（n=61）	4.5±1.1	3.3±0.8	55.2±19.6	40.2±15.1	2185.3±172.5	281.6±42.4
observation group（n=61）	4.6±1.2	2.9±1.0	56.1±18.8	50.5±19.3	2118.9±177.9	570.5±83.3
t	10.021	15.265	10.114	11.158	11.336	18.875
P	>0.05	＜0.05	>0.05	＜0.05	>0.05	＜0.05

2.4 Comparison of Karnofsky index parameters in two groups of patients

The Karnofsky index parameters in the experimental group is（80.6±5.14）points，and in observation group is （ 61.1±1.6 ） points. The Karnofsky score of the experimental group was significantly higher than that of the control group (P <0.05)，see table 2 for specific data.

Table 3 Comparison of Karnofsky index parameters in two groups of patients ($\bar{x}$ ±s，points)

Groups	Karnofsky score
experimental group（n=61）	80.6±5.14
observation group（n=61）	61.1±1.6
t	15.6552
P	＜0.05

3 Discussion

Primary hepatocellular carcinoma (HCC) is one of the most common malignant tumors in China, with higher morbidity and mortality [8-9]. The primary method of treating primary liver cancer is interventional therapy, and has significant treatment effect especially for patients with advanced hepatocellular carcinoma. However, there are still some defects in the interventional therapy. For example, immune function inhibition, tumor biological behavior and liver function impairment in interventional therapy will affect the quality of life and prognosis of patients [10-11]. In general, patients with primary hepatocellular carcinoma have poor prognosis and short survival time, so it is the focus of attention to provide appropriate methods for treatment. The transcatheter arterial chemoembolization is one of the most important methods in treating primary liver cancer patients at the present stage, and its main advantages are as follows: first, high safety; second, good effect; third, easy to repeat; four, little trauma[12-13]. The main disadvantages of transcatheter arterial chemoembolization are: first, it has adverse reactions, such as fever, vomiting, nausea and anorexia; second, the injection of embolic agent leads to serious liver damage. According to the relevant data, the results showed that the application value of Chinese medicine combined with transcatheter arterial chemoembolization was higher in patients with primary hepatocellular carcinoma, which effectively reduced the level of AFP, alanine transaminase, and increased the level of total bilirubin and white blood count. The main active ingredient of the compound Yew capsules in Chinese medicine is Taxol, which has the function of deswelling and dispersing. Taxus chinensis is a kind of natural anti-tumor drug, which can induce tumor cell apoptosis by combining with the micro-tube protein in the subunit of tumor cell. At this stage, the compound Yew capsule has become a first-line drug for anti-tumor, in addition, the ginsenosides in compound yew capsules can significantly improve the immunity of patients with primary liver cancer, while Glycyrrhizin has the role of detoxification and liver protection, significantly reducing the incidence of adverse drug reactions and preventing recurrence of primary liver cancer patients. The results of this study showed that the total effective rate of treatment in the experimental group was 81.97%, the total effective rate of the control group was 52.46%, and the curative effect of the patients in the experimental group was much higher than that of the control group (P＜0.05＝; The recurrence rate of patients after one-year follow-up was 19.67%, and the recurrence rate of the control group was 54.1%, and the recurrence rate in the experimental group was much lower than that in the control group（P＜0.05＝. From the above research data, it is not difficult to find that after transcatheter arterial chemoembolization, and use the compound Yew capsule can prolong the survival time of patients, improve the quality of life, protect the liver function of patients with primary liver cancer, make up the insufficiency of transcatheter

arterial chemoembolization and improve the therapeutic effect. To sum up, the application of Chinese medicine combined with transcatheter arterial chemoembolization in patients with primary liver cancer is of high value, and it is worth popularizing [14-15].

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